

**CLAIMS**

1. Signal processing apparatus (100), comprising:  
first tuning means (10) for generating a first IF signal corresponding to a  
5 first RF signal;  
first demodulating means (50) for generating a first demodulated signal  
corresponding to said first IF signal;  
second tuning means (20) for generating a second IF signal  
corresponding to a second RF signal;  
10 second demodulating means (60) for generating a second demodulated  
signal corresponding to said second IF signal; and  
third demodulating means (90) for generating a third demodulated  
signal corresponding to one of said first and second IF signals.
- 15 2. The signal processing apparatus (100) of claim 1, wherein said first RF  
signal is provided via a terrestrial signal source.
3. The signal processing apparatus (100) of claim 1, wherein said second  
RF signal is provided via a cable signal source.  
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4. The signal processing apparatus (100) of claim 1, wherein:  
said first demodulating means (50) includes a first analog demodulator;  
said second demodulating means (60) includes a second analog  
demodulator; and  
25 said third demodulating means (90) includes a digital demodulator.
5. The signal processing apparatus (100) of claim 4, wherein:  
said first analog demodulator (50) generates a first AGC signal  
responsive to said first IF signal;  
30 said second analog demodulator (60) generates a second AGC signal  
responsive to said second IF signal; and  
said digital demodulator (90) generates a third AGC signal responsive  
to one of said first and second IF signals.

6. The signal processing apparatus (100) of claim 5, further comprising:  
first RF AGC switching means (30) for selectively providing one of said  
first and third AGC signals to said first tuning means (10); and  
5 second RF AGC switching means (40) for selectively providing one of  
said second and third AGC signals to said second tuning means (20).

7. The signal processing apparatus of claim 1, further comprising IF  
switching means (70) for selectively providing one of said first and second IF signals  
10 to said third demodulating means (90).

8. A method for performing signal processing, comprising:  
receiving a first RF signal from a first signal source;  
generating a first IF signal corresponding to said first RF signal  
15 responsive to a first channel selection;  
generating a first demodulated signal corresponding to said first IF  
signal if said first channel selection is an analog channel selection;  
receiving a second RF signal from a second signal source;  
generating a second IF signal corresponding to said second RF signal  
20 responsive to a second channel selection;  
generating a second demodulated signal corresponding to said second  
IF signal if said second channel selection is an analog channel selection; and  
generating a third demodulated signal corresponding to one of said first  
and second IF signals if one of said first and second channel selections is a digital  
25 channel selection.

9. The method of claim 8, wherein said first signal source is a terrestrial  
signal source.

30 10. The method of claim 8, wherein said second signal source is a cable  
signal source.

11. The method of claim 8, further comprised of:

generating a first AGC signal responsive to said first IF signal if said first channel selection is an analog channel selection;

generating a second AGC signal responsive to said second IF signal if said second channel selection is an analog channel selection; and

5           generating a third AGC signal responsive to one of said first and second IF signals if one of said first and second channel selections is a digital channel selection.

12.   A television signal receiver (100), comprising:

10           a first tuner (10) operative to generate a first IF signal corresponding to a first RF signal;

          a first demodulator (50) operative to generate a first demodulated signal corresponding to said first IF signal;

15           a second tuner (20) operative to generate a second IF signal corresponding to a second RF signal;

          a second demodulator (60) operative to generate a second demodulated signal corresponding to said second IF signal; and

          a third demodulator (90) operative to generate a third demodulated signal corresponding to one of said first and second IF signals.

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13.   The television signal receiver (100) of claim 12, wherein said first RF signal is provided via a terrestrial signal source.

14.   The television signal receiver (100) of claim 12, wherein said second  
25   RF signal is provided via a cable signal source.

15.   The television signal receiver (100) of claim 12, wherein:

          said first demodulator (50) includes a first analog demodulator;

          said second demodulator (60) includes a second analog demodulator;

30   and

          said third demodulator (90) includes a digital demodulator.

16.   The television signal receiver (100) of claim 15, wherein:

said first analog demodulator (50) generates a first AGC signal responsive to said first IF signal;

said second analog demodulator (60) generates a second AGC signal responsive to said second IF signal; and

5       said digital demodulator (90) generates a third AGC signal responsive to one of said first and second IF signals.

17.   The television signal receiver (100) of claim 16, further comprising:

10       a first RF AGC switch (30) operative to selectively provide one of said first and third AGC signals to said first tuner (10); and

      a second RF AGC switch (40) operative to selectively provide one of said second and third AGC signals to said second tuner (20).

18.   The television signal receiver of claim 12, further comprising an IF  
15   switch (70) operative to selectively provide one of said first and second IF signals to said third demodulator (90).